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PATENT COOPERATION TREATY

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INTERNATIONAL PRELIMINARY EXAMINATION REPORT
(PCT Article 36 and Rule 70)

Applicant's or agent's file reference P013532WO	FOR FURTHER ACTION See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)	
International application No. PCT/GB 03/01255	International filing date (day/month/year) 24.03.2003	Priority date (day/month/year) 28.03.2002
International Patent Classification (IPC) or both national classification and IPC F16C33/10		
Applicant IMPERIAL COLLEGE INNOVATIONS LIMITED et al.		

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.

2. This REPORT consists of a total of 6 sheets, Including this cover sheet.

This report is also accompanied by ANNEXES, i.e. sheets of the description, claims and drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before the Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT)

These annexes consist of a total of sheets.

3. This report contains indications relating to the following items:

- I Basis of the opinion
- II Priority
- III Non-establishment of opinion with regard to novelty, inventive step and Industrial applicability
- IV Lack of unity of invention
- V Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- VI Certain documents cited
- VII Certain defects in the international application
- VIII Certain observations on the international application

Date of submission of the demand 30.09.2003	Date of completion of this report 07.07.2004
Name and mailing address of the International preliminary examining authority: European Patent Office D-80298 Munich Tel. +49 89 2399 - 0 Tx: 523656 epmu d Fax: +49 89 2399 - 4465	Authorized Officer Gonzalez Davila, J-C Telephone No. +49 89 2399-2767



INTERNATIONAL PRELIMINARY
EXAMINATION REPORT

International application No. PCT/GB 03/01255

I. Basis of the report

1. With regard to the **elements** of the international application (*Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17)*):

Description, Pages

1-26 as originally filed

Claims, Numbers

1-20 as originally filed

Drawings, Sheets

1/10-10/10 as originally filed

2. With regard to the **language**, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language: , which is:

- the language of a translation furnished for the purposes of the international search (under Rule 23.1(b)).
- the language of publication of the international application (under Rule 48.3(b)).
- the language of a translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- contained in the international application in written form.
- filed together with the international application in computer readable form.
- furnished subsequently to this Authority in written form.
- furnished subsequently to this Authority in computer readable form.
- The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. The amendments have resulted in the cancellation of:

- the description, pages:
- the claims, Nos.:
- the drawings, sheets:

**INTERNATIONAL PRELIMINARY
EXAMINATION REPORT**

International application No.

PCT/GB 03/01255

5. This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed (Rule 70.2(c)).

(Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.)

6. Additional observations, if necessary:

III. Non-establishment of opinion with regard to novelty, inventive step and industrial applicability

1. The questions whether the claimed invention appears to be novel, to involve an inventive step (to be non-obvious), or to be industrially applicable have not been examined in respect of:

the entire international application,

claims Nos. 26

because:

the said international application, or the said claims Nos. relate to the following subject matter which does not require an international preliminary examination (specify):

the description, claims, or drawings (*in case particular elements below*) or said claims Nos. 26 are so unclear that no meaningful opinion can be formed (specify):

see separate sheet

the claims, or said claims Nos. are so inadequately supported by the description that no meaningful opinion could be formed.

no international search report has been established for the said claims Nos.

2. A meaningful international preliminary examination cannot be carried out due to the failure of the nucleotide and/or amino acid sequence listing to comply with the standard provided for in Annex C of the Administrative Instructions:

the written form has not been furnished or does not comply with the Standard.

the computer readable form has not been furnished or does not comply with the Standard.

V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**1. Statement**

Novelty (N)	Yes: Claims	1-25
	No: Claims	

Inventive step (IS)	Yes: Claims	1-25
	No: Claims	

Industrial applicability (IA)	Yes: Claims	1-25
	No: Claims	

2. Citations and explanations

**INTERNATIONAL PRELIMINARY
EXAMINATION REPORT**

International application No. **PCT/GB 03/01255**

see separate sheet

Re Item III

Non-establishment of opinion with regard to novelty, inventive step and industrial applicability

1. Claim 26 is not clear as the half wetted bearing is not defined. The claim should have been reformulated to include the essential features of the invention.

Re Item V

Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. None of the prior art documents contained in the search report reveals a bearing as set forth in claim 1, comprising a first bearing surface separated by a gap having a convergent region and containing fluid from a second bearing surface, wherein the first bearing surface moves relative to the convergent region and the second bearing surface slips relative to the fluid and pressure within the gap between said first and second bearing surfaces.
2. The above features are neither known from, nor rendered obvious in respect of prior art so that claim 1 therefore meets the requirements of Articles 33(2) and 33(3) PCT.
3. Dependent claims 2 to 22 contain advantageous modifications of the inventive idea embodied in claim 1 and also meet the requirements of Articles 33(2) and 33(3) PCT.
4. None of the prior art documents contained in the search report reveals a bearing as set forth in claim 23, comprising a wettable surface moveable in relation to and separated by a gap from a non-wettable surface, the gap having a convergent region and an intermediate lubricant layer therein, the intermediate lubricant layer adhering at a first interface to the wettable surface and non-adhering at a second interface to the non-wettable surface.
5. The above features are neither known from, nor rendered obvious in respect of prior art so that claim 23 therefore meets the requirements of Articles 33(2) and 33(3) PCT.

**INTERNATIONAL PRELIMINARY
EXAMINATION REPORT - SEPARATE SHEET**

International application No. PCT/GB03/01255

6. Dependent claims 24 and 25 contain advantageous modifications of the inventive idea embodied in claim 23 and also meet the requirements of Articles 33(2) and 33(3) PCT

Additional observations

1. Your application contains independent claims 1, 23 and 26 of the same category. These claims are partly overlapping so that the application does not satisfy the requirement of Article 6 PCT as regards clarity and conciseness of the claims.
2. The features of the claims should have been provided with reference signs placed in parentheses (Rule 6.2(b) PCT).